

55. The method of Claim 48 wherein the at least two coating heat sources raises the temperature of the substrate by no more than 250° C.
56. The method of Claim 48 wherein the moving of one of the substrate or the at least two coating heat sources relative to the other is at a velocity of between 50 to 1000 inches per minute.
57. The method of Claim 48 wherein the substrate is preheated prior to forming the coating.
58. The method of Claim 48 wherein the coating is an oxide.
59. The method of Claim 48 wherein the coating is a mixture of an oxide and a metal.
60. The method of Claim 48 wherein the coating is a chosen from the group consisting of nitrides, metals, borides, carbides and phosphides.
61. The method of Claim 48 wherein:
the one of the at least two coating heat sources increases the temperature of the section by X degrees C.; and
the first time period is of a length sufficient to allow the temperature of the section to be reduce by between 10%-90% of X prior to heating by the other of the at least two coating heat sources.
62. A method for concentrated heat deposition of a coating on a substrate, said method comprising the steps of:
(a) providing at least one coating heat source to deposit the coating on the substrate, the coating heat source also capable of heating a section of the substrate; and
(b) moving one of the substrate or the at least one coating heat source relative to the other such that the substrate is not damaged by the at least one coating heat source and such that the substrate is allowed to cool after deposition by the at least one coating heat source prior to deposition by the at least one heat source on adjacent sections of the substrate.
63. The method according to Claim 62 wherein the step of moving one of the substrate and the at least one coating heat source relative to the other further comprises depositing the coating on a plurality of paths across the surface of the substrate, each of the plurality of paths being parallel to each other and spaced a specific distance from each other.
64. The method according to Claim 62 wherein the step of moving one of the substrate and the at least one coating heat source relative to the other comprises depositing the coating on a plurality of paths across the surface of the substrate to deposit the coating from one edge of the substrate to the opposite edge of the substrate on all paths of the plurality of paths.
65. The method according to Claim 63 wherein the plurality of paths include a first plurality of paths and a second plurality of paths, and the step of moving one of the substrate and the at least one coating heat source relative to the other further comprises first depositing the coating on the first plurality of path and then depositing the coating on the second plurality of paths.
66. The method according to Claim 65 wherein the first plurality of paths are identical to the second plurality of paths such that areas of greater and lesser coating thicknesses are formed on the surface of the substrate.

67. The method according to Claim 65 wherein the first plurality of paths are at right angles to the second plurality of paths such that areas of greater and lesser coating thicknesses are formed on the surface of the substrate in the form of a grating pattern.

68. An tempered or annealed article comprising a coating on a substrate, said article made by a method, the method comprising the steps of:

(a) providing at least one coating heat source for heating a section of the substrate to a temperature sufficient to form the coating on the section; and

(b) moving one of the substrate or the at least one coating heat source relative to the other such that the substrate is maintained at a temperature that does not require reheating the article to retain the temper or anneal.

69. The method of claim 68 wherein the maintaining of the temperature of the substrate preserves the original stress in the substrate such that the substrate can be coated, cooled and cut without a formal annealing process.

70. The method of claim 68 wherein the temperature the substrate is maintained at a temperature that is equal to or below traditional pryolytic spray temperatures.

71. The method of claim 68 wherein a gas temperature of the coating method is within 50° C of the substrate temperature.

72. An article comprising a coating on a brittle substrate, said article made by a method, the method comprising the steps of:

(a) providing at least one coating heat source for heating a section of the substrate to a temperature sufficient to form the coating on the section;

(b) moving one of the substrate or the at least one coating heat source relative to the other such that the substrate is not damaged by the at least one heating source; and

(c) forming the final desired coating during the coating process such that no additional heat treatments or curing are required to yield the desired coating properties.

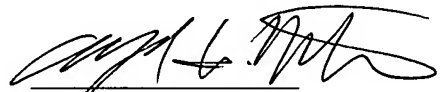
73. The article according to claim 72, said substrate being one of tempered or annealed and the method does not require reheating to retain the temper or anneal.--

REMARKS

By this amendment, the claims have been amended to more clearly define over the prior art references cited in the PCT application. Please determine the filing fee for this application after deleting claims 1-47, and inserting claims 48-73. No new matter has been added. Currently, claims 48-73 are pending.

Respectfully Submitted,

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